

**WHAT IS CLAIMED IS:**

1           1. A directory gatekeeper for performing alternate routing of calls through a plurality  
2 of gateway resources, the directory gatekeeper comprising:

3           one or more communication devices providing access to a plurality of resource  
4 management gatekeepers, each resource management gatekeeper associated with one or more  
5 of the plurality of gateway resources;

6           a memory device storing a list of routes wherein each route is associated with one of  
7 the plurality of resource management gatekeepers; and

8           a processor operable to receive a request through the one or more communication  
9 devices,

10          wherein in response to a received request, the processor performs alternate routing by  
11 selecting a route from the list of routes using the corresponding resource management  
12 gatekeeper to determine resource availability.

1           2. The directory gatekeeper of claim 1, wherein one of the one or more  
2 communication devices provides access to a packet-based network.

1           3. The directory gatekeeper of claim 2, wherein the packet-based network is an  
2 Internet protocol (IP) network.

1           4. The directory gatekeeper of claim 1, wherein the one or more communication  
2 devices provides access to the public switched telephone network (PSTN).

1           5. The directory gatekeeper of claim 1, wherein performing alternate routing of calls  
2 includes:

3           identifying one or more candidate routes based on the received request; and

4           for each of the one or more candidate routes,

5           selecting a candidate route from the one or more candidate routes;

6           determining if the selected candidate route is available; and

7           if the selected candidate route is available, sending a response to the received  
8 request indicating that the candidate route is available.

1           6. The directory gatekeeper of claim 5, wherein performing alternate routing of calls  
2 further includes:

3           if none of the candidate routes are available, sending a response to the received  
4 request indicating that the request can not be completed.

1           7. The directory gatekeeper of claim 5, wherein selecting a candidate route from the  
2 one or more candidate routes includes selecting the least cost route as the candidate route.

1           8. The directory gatekeeper of claim 5, wherein selecting a candidate route from the  
2 one or more candidate routes includes selecting a candidate route from the one or more  
3 candidate routes at a predetermined ratio.

1           9. The directory gatekeeper of claim 8, wherein the predetermined ratio is selected  
2 such that the likelihood of choosing each of the one or more candidate routes is substantially  
3 equal.

1           10. A method for performing alternate routing of calls in a directory gatekeeper, the  
2 method comprising:  
3           receiving a request to initiate a call;  
4           determining a list of possible routes for terminating the call;  
5           if a route is available, selecting a route from the list of possible routes by querying  
6 one or more resource management gatekeepers;  
7           if a route is available, sending a response to the received request to initiate a call  
8 indicating the selected route; and  
9           if a route is not available, sending a response to the received request to initiate a call  
10 indicating that the request will not be completed.

1           11. The method of claim 10, wherein the request includes a telephone number.

1           12. The method of claim 11, wherein the number includes a numbering plan area  
2 (NPA).

1           13. The method of claim 10, wherein the request to initiate a call is an H.323  
2 admission request (ARQ) message.

1           14. The method of claim 10, wherein each route in the list of routes is associated  
2 with a resource management gatekeeper.

1           15. The method of claim 14, wherein the step of selecting a route from the list of  
2 possible routes by querying one or more resource management gatekeepers includes:  
3           for each route in the list of possible routes,  
4                 selecting a candidate route from the list of possible routes; and  
5                 determining if the selected candidate route is available.

1           16. The method of claim 15, wherein selecting a candidate route from list of possible  
2 routes includes selecting the least cost route as the candidate route.

1           17. The method of claim 15, wherein selecting a candidate route from the list of  
2 possible routes includes selecting a candidate route from the list of possible routes at a  
3 predetermined ratio.

1           18. The method of claim 17, wherein the predetermined ratio is selected such that the  
2 likelihood of choosing each of the one or more candidate routes is substantially equal.

1           19. A computer-readable medium including software for performing alternate routing  
2 of calls through a plurality of gateway resources, the software configuring a computer to  
3 performing a method, the method including:  
4           receiving a request to initiate a call;  
5           determining a list of possible routes for terminating the call;  
6           if a route is available, selecting a route from the list of possible routes by querying  
7 one or more resource management gatekeepers;  
8           if a route is available, sending a response to the received request to initiate a call  
9 indicating the selected route; and

10           if a route is not available, sending a response to the received request to initiate a call  
11           indicating that the request will not be completed.

1           20. The computer-readable medium of claim 19, wherein the request includes a  
2           telephone number.

1           21. The computer-readable medium of claim 20, wherein the number includes a  
2           numbering plan area (NPA).

1           22. The computer-readable medium of claim 19, wherein the request to initiate a call  
2           is an H.323 admission request (ARQ) message.

1           23. The computer-readable medium of claim 19, wherein each route in the list of  
2           routes is associated with a resource management gatekeeper.